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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,739	07/26/2001	Lluis Hierro	60003207-2	7884

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HEWLETT-PACKARD COMPANY
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EXAMINER

KOHNER, MATTHEW J

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/915,739	HIERRO ET AL.	
	Examiner	Art Unit	
	Matthew J Kohner	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 15-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/26/01; 3/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims contain the language "the roller element engages a media at one ... location[s] along the direction of said axis, wherein, as the media advances, said one ... location[s] of engagement move(s) continuously in the direction of said axis ..."

This language is unclear. For example, Fig. 3 of applicant's drawings show that the contact portion, as a whole, of raised portion, 25, would move axially as the pinch wheel turns.

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However, "one location" along the axis (e.g. a single point in the middle of the raised portion, 25) does not move axially. In fact, a single point in the middle of the surface of the raised portion would be in contact with the media at the same axial location though out the revolution of the roller. In other words, if one took a pen and touched it a point in the middle of raised surface 25 and then rotated the pinch wheel one full turn, there would be a ring around raised surface which would show no axial movement of the location marked by the pen. Therefore, at least "one location of engagement" does not move continuously in the direction of the axis. Hence, the claim language is imprecise. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-11 and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Japanese Patent Application 10-252084 to Takumi.

In regard to claims 1-3 and 15, Takumi discloses a roller element (See Fig. 1) which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one

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or more locations of engagement (3) move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

In regard to claims 4, Takumi discloses a raised portion in the form of a continuous band (3) around the circumference of the roller element and inclined relative to the direction of the media advance (See Fig. 1).

In regard to claim 5, the band (3) has a substantially uniform dimension in the direction of the axis (See Fig. 1).

In regard to claims 6, the band's edges possess no discontinuities (See Fig. 1).

In regard to claims 7 and 8, Takumi provides substantially identical bands (3 and 4) at either end of the roller.

In regard to claim 9, Takumi discloses the roller element has non-raised portions adjacent to each raised portion, the area of each raised portion lying within the range 30% to 90% of the total area of the raised portion and its respective adjacent non-raised portions (See Fig. 1).

In regard to claims 10-11, the raised portion (3) forms a helix (See Fig. 1).

4. Claims 1-6, 9-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 05116789 to Takahashi.

In regard to claims 1-3 and 15, Takahashi discloses a roller element (See Fig. 1) which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one

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or more locations of engagement (Y) move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

In regard to claims 4, Takahashi discloses a raised portion in the form of a continuous band (Y) around the circumference of the roller element and inclined relative to the direction of the media advance (See Fig. 1).

In regard to claim 5, the band (Y) has a substantially uniform dimension in the direction of the axis (See Fig. 1).

In regard to claims 6, the band's edges possess no discontinuities (See Fig. 1).

In regard to claim 9, Takahashi discloses the roller element has non-raised portions adjacent to each raised portion, the area of each raised portion lying within the range 30% to 90% of the total area of the raised portion and its respective adjacent non-raised portions (See Fig. 1).

In regard to claims 10-11, the raised portion (Y) forms a helix (See Fig. 1).

5. Claims 1-6, 9-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Application 09-13726 to Shibata.

In regard to claims 1-3 and 15, Shibata discloses a roller element (See Fig. 1) which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one

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or more locations of engagement (2) move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

In regard to claims 4, Shibata discloses a raised portion in the form of a continuous band (2) around the circumference of the roller element and inclined relative to the direction of the media advance (See Fig. 1).

In regard to claim 5, the band (2) has a substantially uniform dimension in the direction of the axis (See Fig. 1).

In regard to claims 6, the band's edges possess no discontinuities (See Fig. 1).

In regard to claim 9, Shibata discloses the roller element has non-raised portions adjacent to each raised portion, the area of each raised portion lying within the range 30% to 90% of the total area of the raised portion and its respective adjacent non-raised portions (See Fig. 1).

In regard to claims 10-11, the raised portion (2) forms a helix (See Fig. 1).

6. Claims 1-6, 9-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,773,143 to Okamura et al.

In regard to claims 1-3 and 15, Okamura discloses a roller element (See Fig. 1) which is arranged to be rotatably mounted in a media-advancing device (Col. 1, line 10+) with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one or more locations of engagement (112) move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

In regard to claims 4, Okamura discloses a raised portion in the form of a continuous band (112) around the circumference of the roller element and inclined relative to the direction of the media advance (See Fig. 1).

In regard to claim 5, the band (112) has a substantially uniform dimension in the direction of the axis (See Fig. 1).

In regard to claims 6, the band's edges possess no discontinuities (See Fig. 1).

In regard to claim 9, Okamura discloses the roller element has non-raised portions adjacent to each raised portion, the area of each raised portion lying within the range 30% to 90% of the total area of the raised portion and its respective adjacent non-raised portions (See Fig. 1).

In regard to claims 10-11, the raised portion (112) forms a helix (See Fig. 1).

7. Claims 1-6, 9-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 1,576,726 to Davis.

In regard to claims 1-3 and 15, Davis discloses a roller element (See Fig. 6) which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one or more locations of engagement (16) move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

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In regard to claims 4, Davis discloses a raised portion in the form of a continuous band (16) around the circumference of the roller element and inclined relative to the direction of the media advance (See Fig. 6).

In regard to claim 5, the band (16) has a substantially uniform dimension in the direction of the axis (See Fig. 6).

In regard to claims 6, the band's edges possess no discontinuities (See Fig. 6).

In regard to claim 9, Davis discloses the roller element has non-raised portions adjacent to each raised portion, the area of each raised portion lying within the range 30% to 90% of the total area of the raised portion and its respective adjacent non-raised portions (See Fig. 6).

In regard to claims 10-11, the raised portion (16) forms a helix (See Fig. 6).

8. Claims 1-6, 9-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,404,159 to Barber.

In regard to claims 1-3 and 15, Barber discloses a roller element (See Fig. 1) which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one or more locations of engagement (3) move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

In regard to claims 4, Barber discloses a raised portion in the form of a continuous band (3) around the circumference of the roller element and inclined relative to the direction of the media advance (See Fig. 1).

In regard to claim 5, the band (3) has a substantially uniform dimension in the direction of the axis (See Fig. 1).

In regard to claims 6, the band's edges possess no discontinuities (See Fig. 1).

In regard to claim 9, Barber discloses the roller element has non-raised portions adjacent to each raised portion, the area of each raised portion lying within the range 30% to 90% of the total area of the raised portion and its respective adjacent non-raised portions (See Fig. 1).

In regard to claims 10-11, the raised portion (3) forms a helix (See Fig. 1).

9. Claims 1-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,421,259 to Shiba et al.

In regard to claims 1-3 and 15, Shiba discloses a roller element (See Fig. 2) which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one or more locations of engagement (3) move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

In regard to claims 4, Shiba discloses a raised portion in the form of a continuous band (3) around the circumference of the roller element and inclined relative to the direction of the media advance (See Fig. 2).

In regard to claim 5, the band (3) has a substantially uniform dimension in the direction of the axis (See Fig. 2).

In regard to claims 6, the band's edges possess no discontinuities (See Fig. 2).

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In regard to claims 7 and 8, Shiba provides substantially identical bands (See Fig. 2) at either end of the roller.

In regard to claim 9, Shiba discloses the roller element has non-raised portions adjacent to each raised portion, the area of each raised portion lying within the range 30% to 90% of the total area of the raised portion and its respective adjacent non-raised portions (See Fig. 2).

In regard to claims 10-11, the raised portion (3) forms a helix (See Fig. 2).

10. Claims 1-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,188,273 to Schmooch.

In regard to claims 1-3 and 15, Schmooch discloses a roller element (See Fig. 1) which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one or more locations of engagement (3) move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

In regard to claims 4, Schmooch discloses a raised portion in the form of a continuous band (3) around the circumference of the roller element and inclined relative to the direction of the media advance (See Fig. 1).

In regard to claim 5, the band (3) has a substantially uniform dimension in the direction of the axis (See Fig. 1).

In regard to claims 6, the band's edges possess no discontinuities (See Fig. 1).

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In regard to claims 7 and 8, Schmooch provides substantially identical bands (See Fig. 1) at either end of the roller.

In regard to claim 9, Schmooch discloses the roller element has non-raised portions adjacent to each raised portion, the area of each raised portion lying within the range 30% to 90% of the total area of the raised portion and its respective adjacent non-raised portions (See Fig. 1).

In regard to claims 10-11, the raised portion (3) forms a helix (See Fig. 1).

11. Claims 1, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 2,052,566 to Haines.

In regard to claims 1 and 15, Haines discloses a roller element (See Fig. 3) which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one or more locations of engagement (12) move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

In regard to claims 16, Haines discloses a drive roller (90).

12. Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,645,361 to Mitsushima et al.

In regard to claim 15, Mitsushima discloses a roller element (See Fig. 4a) which is arranged to be mounted in a media-advancing device with its axis extending transversely of the

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direction of media advance such that different parts (17a) of the roller element successively engage with and then disengage from the media, wherein a line joining the points on the roller surface of the roller element which disengage from the media at successive moments in time is inclined relative to the direction of media advance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takumi.

Takumi doesn't specifically disclose a drive roller biased against the roller element. However, Takumi does disclose that the invention is to be used in a printer or facsimile (Para. 002). It would be obvious to one of ordinary skill in the art that such a roller is used in conjunction with a drive roller in order to convey the media through the printer or facsimile.

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata.

Shibata doesn't specifically disclose a drive roller biased against the roller element. However, Shibata does disclose a follower roller (3). It would be obvious to one of ordinary skill in the art that the other roller (3) could be used as a drive roller with the roller 2 biased against it.

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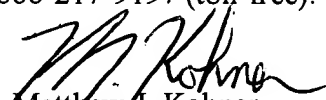
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

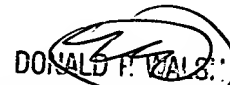
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kohner whose telephone number is 703-305-8496. The examiner can normally be reached on Mon-Fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306-4173. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Matthew J. Kohner
Examiner
Art Unit 3653

mjk


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